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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/031,184 | 01/16/2002 | Edward E Beeles | HISHE-56781 | 2542 |

7590 09/09/2004

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| EXAMINER |
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SAETHER, FLEMMING

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| ART UNIT | PAPER NUMBER |
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3677

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,184

Applicant(s)

BEELES ET AL.

Examiner

Flemming Saether

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6-28-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Claim Rejections - 35 USC § 102

Claims 1-4, 7-10, 13-17, 20-23, 27, 28 and 31-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Briles (US 3,550,498). Initially, it should be noted that although Briles shows a nut, it is disclosed "the invention may be embodied in a swage-collar type of nut in the same manner as in the threaded type of nut" (column 9, line 44-45). In that regard, Briles discloses a swage fastener system comprising a pin (54) and a collar (12, 14). The pin includes a threaded (60) and non-threaded portion (56, 58). The collar includes an outwardly flared end portion (20) and a main central bore (at 24) with a shoulder having a larger diameter receiving a sealing insert (16). The sealing insert is deformable so that upon installation it interfaces with the unthreaded and threaded portion of the pin and a workpiece to form a seal (see Fig. 4). The nut is made of a metal and since it discloses a "swage" collar, by definition it would be deformable. Briles disclose the sealing insert to be made of tetrafluoroethylene (TEFLON, column 7 line 69). In Briles, the "collar" is read to be inclusive of the member (14) and as such the sealing insert is "tightly sealed" entirely within the collar in the installed condition (see Fig. 4) in engagement with the fastener and a base portion (32) contacts the workpiece.

Claim Rejections - 35 USC § 103

Claims 26-28, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briles on view of Armour (US 3,066,568). As described above, Briles discloses a swage collar and associated pin but, is not specific on the swaging process.

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Even though swaging processes are well known as discussed in the "Background of the Invention", Armour is used to show the process therein a collar (20) having an internal diameter larger than a pin is positioned on the pin then plastically deformed inwardly to engage the shaft of the pin (Fig 2) by swaging tool (24). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to swage the collar onto the pin in Briles by a process as disclosed in Armour for its recognized efficiency.

Claims 5, 6, 18, 19, 39 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briles or Briles in view of Armour as applied to claims 1, 4, 13, 17, 27 and 28 above, and further in view of Rath (US 4,768,910). Briles, alone or in view of Armour, does not disclose the collar made of aluminum or titanium. Rath discloses a swage collar and teaches it could be made of aluminum or titanium (column 2, line 61-64). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the collar of Briles out of aluminum or titanium as disclosed in Rath in order to make the collar lighter and stronger respectively. Lighter and stronger collars would be desirable in applications such as aerospace.

Claims 11, 12, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briles as applied to claims 1, 2, 13 and 15 above, and further in view of Breed (US 3,399,589). Briles does not disclose the sealing insert secured to the Collar by complementary rounded flange and groove. Breed discloses a sealing insert secured to nut member by a complementary rounded groove and flange (72). At the

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time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the seal insert and collar of Briles with a complementary rounded groove and flange as disclosed in Breed in order to provide better securement of the seal insert within the collar. The better securement would help prevent the seal insert from coming loose and possibly detached.

Response to Remarks

Applicant argues that Briles does not disclose the sealing insert to be tightly sealed within the collar in the installed condition. In response, although the examiner does not dispute applicant's understanding of Briles, the examiner contends that Briles continues to read on the claims. In that regard, "tightly" is a simply a matter of degree without any reference value thus the insert of Briles is considered to be "tightly" received and as shown in Briles' Fig. 4, the inserted is "sealed" against the fastener. The fact that in Briles the sealing insert is intended to be partially displaced in the grooves (52) does not preclude it from being "tightly sealed".

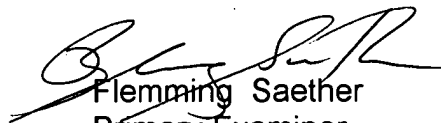
The subsequent arguments rely on the same claim limitations as argued above and therefore, no further response is believed necessary.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Flemming Saether
Primary Examiner
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